# POST REGISTRATION CHANGES VALIDATION OPINION

# INNER MONGOLIA CHINA WATER GROUP HUADE NIUJIAFANGZI WIND FARM 49.5MW PROJECT

(UNFCCC Reference Number: 5992)

Report No.: CTI/NB-2014-0402-5
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| Verification organisation: | Client: |
|---|---|
| Shenzhen CTI International Certification Co., Ltd | Eco-Tec Asia (UK) Ltd |
| **Project title:** | |
| Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project | |
| **CDM reference number:** | **Report number:** |
| 5992 | CTI/NB-2014-0402-5 |
| **PRC tracks:** | |
| ☐ Prior approval track ☒ Issuance track | |
| **Validation of the changes were concluded:** | |
| ☐ Prior to the commencement of a verification of the project activity<br>☒ When performing a verification of the project activity | |
| **Types of changes** | |
| ☒ Temporary deviations from the registered monitoring plan and/or monitoring methodology<br>☒ Corrections<br>☐ Changes to the start date of the crediting period<br>☒ Permanent changes from the registered monitoring plan or applied methodology<br>☐ Changes to the project or programme design of a registered project activity or PoA<br>☐ Changes specific to afforestation or reforestation project activities | |

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## *Abbreviations*

| | |
|---|---|
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction(s) |
| $CO_2$ | Carbon dioxide |
| $CO_2e$ | Carbon dioxide equivalent |
| CTI | Shenzhen CTI International Certification Co., Ltd |
| DOE | Designated Operational Entity |
| ER | Emission Reduction |
| GHG | Greenhouse gas(es) |
| MR | Monitoring Report |
| PDD | Project Design Document |
| UNFCCC | United Nations Framework Convention on Climate Change |

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# 1 INTRODUCTION

Eco-Tec Asia (UK) Ltd has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the validation of post registration changes for the "Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project" (hereafter called "the project").

This report contains the findings from the validation of post registration changes, performed on the basis of UNFCCC criteria, as well as given to provide for consistent project operations, monitoring and reporting.

## 1.1 Objective

The purpose of a validation is to have an independent third party assess the post registration changes. In particular, the changes' compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the changes meet the applicable CDM requirement and the identified criteria.

## 1.2 Scope

The validation scope is defined as an independent and objective review of the revised project design document (PDD) and other relevant documents. The PDD is reviewed against the criteria stated in the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0002 (version 12.1.0). The validation was based on the recommendations in the CDM Validation and Verification Standard.

The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

## 1.3 CDM project description

| | |
|---|---|
| Project Parties: | China (host Party) |
| | United Kingdom of Great Britain and Northern Ireland (Other Party) |
| Project title: | Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project |
| UNFCCC registration No: | 5992 |
| UNFCCC registration date: | 11 April 2012 |
| Applied methodology: | ACM0002 (version 12.1.0) |
| Project Participants: | China Water Group Huade Wind Power Co., Ltd from China |
| | Eco-Tec Asia (UK) Ltd from United Kingdom of Great Britain and Northern Ireland |
| Location of the project activity: | Changshun Town, Huade County, Ulanqab City, Inner Mongolia Autonomous Region of China |
| Project's crediting period: | 11 April 2012 to 10 April 2022 (Fixed) |

## 1.4 Validation team

Based on the requirements of competency, experience and qualified sectoral scopes, CTI appointed a validation team in accordance with CTI's internal procedures.

| Function | Name | Technical competence | Task Performance* |
|---|---|---|---|
| Team Leader | Li Ziqi | 1.2 | ☒DR ☒SV ☒RP ☐TR |
| Technical Reviewer | Zhang Lei | 1.1, 1.2, 4.1, 4.3, 4.4, 13.1, 13.2 | ☐DR ☐SV ☐RP ☒TR |

*DR=Document review; SV=Site visit; RP=Reporting; TR=Technical review

# 2 METHODOLOGY

CTI has assessed and determined that the implementation and operation of the project activity, and the steps taken to report project implementation and operation comply with the CDM criteria and relevant guidance provided by the Board. The assessment involved a desk review of relevant documentation, follow-up interviews with project stakeholders, and the resolution of outstanding issues and the issuance of the final validation opinion.

# 3 POST REGISTRATION CHANGES

The post registration changes described below were identified by CTI when performing a verification of the project activity. These post registration changes were assessed by CTI. The assessment of compliance with the project description and the monitoring plan contained in the PDD, as described in the following sections, is based on the revised PDD (version 2.0 dated 28 July 2014).

## 3.1 Temporary deviations from the registered monitoring plan and/or monitoring methodology

### 3.1.1 Description of the deviation

In the page 39 of the registered PDD, it clearly stated that the $EG_{facility,y}$ can be calculated the Formula <1>:

$$EG_{facility,y} = ES_{total,export,y} \times \frac{\sum_{i=1}^{3} ES_{V,i,export,y}}{\sum_{i=1}^{4} ES_{I,i,export,y} + \sum_{j=II}^{VIII} \sum_{i=1}^{3} ES_{j,i,export,y}} - ES_{total,import,y} \times \frac{\sum_{i=1}^{3} ES_{V,i,import,y}}{\sum_{i=1}^{4} ES_{I,i,import,y} + \sum_{j=II}^{VIII} \sum_{i=1}^{3} ES_{j,i,import,y}}$$

However, during the monitoring period 11 April 2012 to 28 February 2014, all parameters in Formula <1> above have been monitored and recorded except for $ES_{j,\,i,\,import\,,y}$ (the electricity imported from the grid to the Phase j project part I measured by the meter $M_{j,i}$ at the project site). The meters monitoring the electricity imported from the grid to the Phase j project were managed and recorded by the 8 projects' owner. The incompleteness and loss of monitoring data for 8 projects from these meters in some months during this monitoring period were reported by the project participants. The project participants were thus temporarily unable to monitor $ES_{j,\,i,\,import,\,y}$ in accordance with the registered monitoring plan in the duration of 11 April 2012 to 28 February 2014. To be conservative, the total amount of electricity imported

from the grid to all 8 projects was applied as the electricity imported from the grid for the proposed project in this monitoring period, and the Formula <1> is thus revised to calculate the $EG_{facility,y}$ as follows:

$$EG_{facility,y} = ES_{total,export,y} \times \frac{\sum_{i=1}^{3} ES_{V,i,export,y}}{\sum_{i=1}^{4} ES_{I,i,export,y} + \sum_{j=II}^{VIII} \sum_{i=1}^{3} ES_{j,i,export,y}} - ES_{total,import,y}$$

### 3.1.2 Assessment of the deviation

During the on-site visit, CTI confirmed that the incompleteness and loss of monitoring data of electricity imported for 8 projects in some months in year 2012 to 2014. CTI considered the above deviation was an accurate reflection of actual project scenario, and was the temporary deviation from the registered monitoring plan identified in the CDM Validation and Verification Standard. The conservative assumptions have been applied by the project participants to calculate the emission reductions as the result of the deviation, which was reasonable and acceptable by CTI. The exact period to which the deviation applies is the proposed monitoring period 11 April 2012 to 28 February 2014.

CTI further confirmed such temporary deviation did not require prior approval corresponding to Para. 2 in Appendix 1 of CDM Project Standard, which stated that "If project participants have temporarily not monitored parameters related to project GHG emissions or are unable to produce evidence related to such monitoring, prior approval by the Board is not required if project participants estimate these parameters assuming that the source of the GHG emissions operated at maximum capacity for the full period of the missing data.".

## 3.2 Corrections

### 3.2.1 Description of corrections

In the page 9 and page 40 of the registered PDD, it clearly stated that the meters $M_{\_D}$ and $M_{\_E}$ are location at "Niujiafangzi" 220 kV Booster Station. However, during on site visit, CTI found the name of the Booster Station is "Niujiafang". The error for the booster station name has been corrected in the revised PDD.

### 3.2.2 Assessment of corrections

By checking the Grid Connection Dispatch Agreement and interviewing the staff of Power Grid Company during the site visit, CTI found the booster station is named "Niujiafang booster station". The explanation issued by Inner Mongolia Power Dispatching and Communicating Centre noted that the name of the booster station is "Niujiafang booster station" based on differentiate it from the Phase V project (Niujiafangzi project), and was nominated by local grid company. CTI confirmed that such change is out of control of project participants and was an accurate reflection of actual project information.

Since the correction above to booster station name does not affect the design of the project activity, the assessment team confirmed that such change does not require prior approval according to Appendix 1 of CDM Project Standard.

## 3.3 Changes to the start date of the crediting period

Not applicable.

## 3.4 Permanent changes from the registered monitoring plan or applied methodology

### 3.4.1 Description of the revision of the monitoring plan

There are following two revisions of the monitoring plan:

(1) In the registered PDD, it clearly stated that "The grid company and the Project owner will record the amount of the net electricity delivered to the NCPG from the meters on the last day of every month". However, by checking the PPA and crosschecking against the ETNs, CTI found that the grid company and the Project owner recorded the amount of the net electricity supplied to the NCPG from the meters on the 20th of every month, which was inconsistent with the registered PDD.

(2) In the page 9 of the registered PDD, it clearly stated that the meter $M_{\_A}$ is the uni-directional meter, and the accuracy is 0.5S. However, during the site visit, CTI found the meter $M_{\_A}$ is the bi-directional meter, and the accuracy is 0.2S.

### 3.4.2 Assessment of the revision of the monitoring plan

**Assessment of when the changes occurred**

(1) The validation report was completed on 27 March 2012, which was prior to the time when the PPA was signed in January 2013. Hence, the settlement time of the meters was estimated in the validated stage by the project participants in the registered PDD, and was finally determined by the grid company appointed in the PPA as 20th of every month. Such change was permanent.

(2) The Phase I project and Changshun Booster station started construction in September 2008, when the Phase 2 ~ Phase 8 projects had not been planned yet. A 0.5S uni-directional $M_{\_A}$ was installed by the project owner for the on-site measurement of Phase I project only. However, when the Phase 2 ~ Phase 8 projects started construction, their corresponding meters $M_{\_B}$ ~ $M_{\_E}$ were planned to use 0.2S bi-directional type to meet higher measurement requirements from the grid company. The meter $M_{\_A}$ was thus changed from the 0.5S uni-directional meter to the current 0.2S bi-directional on 27 November 2010, which is in line with requirements from the power company. Such change was permanent, and happened prior to the validation completion on 27 March 2012. The information of old meter $M_{\_A}$ was used in the PDD during the validation stage.

**Assessment of the reasons for these changes taking place**

(1) By checking the validation report and PPA, and interviewing with project participants, CTI confirmed that the settlement time of the meters was estimated in the validated stage by the project participants in the registered PDD as the last day of every month to record electricity amount based on the former practice, but was finally determined by the grid company appointed in the PPA as 20th of every month. The change is not within the control of project participants.

(2) By checking the PPA and interviewing with project participants, CTI confirmed that the meter $M_{\_A}$ is a bi-directional meter and the accuracy is 0.2S. The old meter $M_{\_A}$ was replaced on 27 November 2010 following the unified planning by Inner Mongolia Power

Dispatching and Communicating Centre, which also was indicated in the PPA. The change is not within the control of project participants.

### 3.4.3 Assessment of the impact of the revision of the monitoring plan

**Assessment of impacts of the revision on the emission reductions calculation under which the project activity has been registered**

These revisions are made to reflect the actual monitoring system, which are in accordance with the approved monitoring methodology ACM0002 (Version 12.1.0) applicable to the project activity.

(1) CTI confirmed that the change of the settlement time of monitoring meters in the monitoring process did not affect or reduce the accuracy and completeness level of emission reductions calculation for the project.

(2) The accuracy of meter $M_{\_A}$ is 0.2S, which is higher than the corresponding information 0.5S in the registered PDD. CTI confirmed that the change of the type and accuracy of meter $M_{\_A}$ in the monitoring process did not affect or reduce the accuracy and completeness level of emission reductions calculation for the project.

Since these changes to the registered monitoring plan are either not within the control of project participants or following the PPA, CTI confirmed such changes do not require prior approval according to Appendix 1 of CDM Project Standard.

**The findings of previous verification reports, if any, have been taken into account**

It is not applicable since this monitoring period is the first verification.

## 3.5 Changes to the project or programme design of a registered project activity or PoA

Not applicable.

## 3.6 Changes specific to afforestation or reforestation project activities

Not applicable.

# 4 VALIDATION OPINION

CTI's verification of the emission reductions reported for the project revealed the changes of the name of booster station, the calculation method of electricity imported for the project, the settlement time of the monitoring meters, the type and accuracy of meter $M_{\_A}$. Considering the assessment presented above, CTI can confirm that:

(a) The proposed correction, temporary deviation and revisions of the monitoring plan ensure that the completeness in the monitoring and verification process is not reduced as a result of the changes;

(b) The proposed changes ensure the conservativeness of the emission reductions calculation process;

(c) The proposed changes are in accordance with the approved monitoring methodology ACM0002 (Version 12.1.0) applicable to the project;

(d) No remaining findings in previous verification reports need to be taken into account;

(e) The proposed changes do not require prior approval by the CDM Board according to Appendix 1 of CDM Project Standard.

The CTI's assessment opinion on changes is submitted together with the revised PDD for acceptance by the CDM Board as part of the request for issuance.

Li Ziqi

Zhang Lei

Mr. Li Ziqi
Team Leader
19 August 2014

Mr. Zhang Lei
Technical Reviewer
19 August 2014

# 5 REFERENCES

## Documentation used by CTI to verify the information provided by the project participants

/1/ Eco-Tec Asia (UK) Ltd: CDM-PDD for project activity Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project, version 1.4 dated 27 March 2012 and version 2.0 dated 28 July 2014.

/2/ TÜV Rheinland (China) Ltd: Validation report for project activity Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project, Version 06 dated 27 March 2012.

/3/ China Water Group Huade Wind Power Co., Ltd: Diagram of power connection system.

/4/ China Water Group Huade Wind Power Co., Ltd and Inner Mongolia Power (Group) Co., Ltd (on behalf of NCPG): Power purchase agreement for Inner Mongolia China Water Group Huade Niujiafangzi Wind Farm 49.5MW Project, signed on January 2013.

## Methodologies, tools and other guidance by the CDM Executive Board

/5/ CDM Executive Board: CDM Validation and Verification Standard, version 7.0

/6/ CDM Executive Board: CDM Project Standard, version 7.0

/7/ CDM Executive Board: CDM Project Cycle Procedure, version 7.0

/8/ CDM Executive Board: Consolidated baseline methodology for grid-connected electricity generation from renewable sources, ACM0002, version 12.1.0.

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